

I. EXECUTIVE SUMMARY**a. Project Title and Applicant Name:**

Title: Chipps Island Shallow-Water Habitat - Wetland Restoration Project

Applicant: Fishery Foundation of California

DWR WAREHOUSE

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b. Project Description and Primary Biological/Ecological Objectives:

Suisun Bay provides important estuarine rearing habitat for a large variety of fish and invertebrate species. Ichthyoplankton (fish eggs and larvae), juvenile and adult lifestages rely on shallow-water habitat within the brackish region of the estuary for all or a part of their lifecycle. The Fishery Foundation of California (Foundation) is requesting Category III funding to establish shallow-water brackish habitat and managed wetlands on Chipps Island. The project has been designed to provide habitat benefit to both aquatic resources (fish and invertebrate populations) and wildlife including seasonal waterfowl. Specific benefits of the project will include creation of 400 acres of shallow-water brackish habitat and managed wetland on Chipps Island within Suisun Bay; monitoring of colonization, habitat use, species composition, and assessment of fish and wildlife benefits; evaluation of water management strategies that, if successfully designed can be replicated to maximize both fishery and wildlife benefits in managed wetlands throughout Suisun Marsh and the Delta; technical input into the development of CALFED design criteria and operational management strategies applicable to other shallow-water wetland habitat projects; and investigation of alternative management techniques designed to improve invertebrate production within managed shallow-water habitat.

c. Approach/Tasks/Schedule

The schedule of the project includes two years for completion of all project planning, permitting, design, and construction. Operation and management of the wetland, including biological monitoring and evaluation of performance, will be performed over a five-year period. Based upon the results of the monitoring and evaluation program, CALFED will then have the option of acquiring the project. The Chipps Island property is currently owned and managed by the Foundation. The proposed approach to the design and implementation of the habitat enhancement project would include: completion of the engineering design of the distribution channels, habitat features, and water management and control structures and review of the design with hydrologists, water quality specialists, fishery and wildlife biologists to assess water circulation patterns, potential sediment deposition and erosion, habitat diversity, and operational control and management of the project; preparation of environmental documentation and permitting, and for peer review and comment; construction of distribution and drainage canals, shallow-water areas, and flashboard weirs used for water management and control; initiate project operations, monitoring, and evaluation; and prepare annual monitoring and evaluation reports.

d. Justification for Project and Funding by CALFED

Losses of shallow-water and wetland habitat have been identified by CALFED as primary environmental stressors affecting fish and wildlife populations within the Bay-Delta system. The proposed project will provide 400 acres of shallow-water and wetland fish and wildlife habitat located within the critical habitat area of Suisun Bay at Chipps Island. The project will also meet secondary CALFED goals of evaluating biological performance of the habitat enhancement project, evaluating alternative water management strategies to substantially increase availability of shallow-water habitat for fisheries while maintaining high quality habitat for wildlife and seasonal waterfowl populations, provide input to a CALFED effort to develop design and operational criteria for wetlands and shallow-water habitat for application to other projects within the Bay-Delta system, and develop habitat enhancement projects which are compatible with and improve the overall benefits derived by other management actions. The proposed project is consistent with the CALFED objective of increasing habitat diversity and providing environmental benefits to large variety of fish, invertebrate, and wildlife species.

e. Budget Costs and Third Party Impacts

The anticipated budget, by year, is Phase II (Year 1): \$167,400; Phase III (Year 2): \$676,400; Phase IV (Years 3-7): \$128,600. Total project funding requested from CALFED is \$972,400. Since the Foundation currently owns the Chipps Island habitat enhancement site, no third party impacts of the proposed project have been identified.

f. Applicant Qualifications

The Foundation is a non-profit corporation established in 1985 to develop and implement innovative fishery restoration programs. Since 1992 the Foundation has successfully completed ten state contracts and is currently managing two contracts with CDFG and DWR. These twelve contracts are valued at over \$1.9 million. The Foundation has completed fisheries habitat restoration and enhancement projects on several tributaries to the Eel River. The Foundation also developed the use of mobile net pens as an integral part of CDF&G's Chinook salmon planting program, and designed and implemented the pen rearing project for striped bass salvaged from the State Water Project. Tom Hampson, a California State licensed building contractor and a licensed aquaculturist, will serve as Project Manager for the Chipps Island Habitat Enhancement Project. Mr. Hampson has managed fishery restoration and enhancement projects for the Foundation since 1992. Dr. Charles Hanson, Hanson Environmental, Inc., will act as fisheries consultant and scientific advisor on the proposed habitat project. Dr. Hanson has been actively involved in the monitoring and evaluation of fisheries populations within the Bay-Delta system for over 20 years. Dr. Hanson has been actively involved in the design, implementation, monitoring, and evaluation of brackish water wetland habitat for wildlife.

g. Monitoring and Data Evaluation

A detailed experimental and sampling design for both aquatic and wildlife resources will be implemented as part of the proposed project. Monitoring and evaluation of the habitat performance would include: periodic hydraulic monitoring; water quality measurements; periodic fisheries sampling; routine sampling of zooplankton and macroinvertebrate species composition and density; colonization and growth of emergent and riparian; and periodic surveys of the abundance, species composition, and interannual and seasonal variation in habitat use by wildlife and avian species. Consideration will be given to developing data consistent with more comprehensive monitoring programs being performed by the CDFG, IEP, and other regional monitoring efforts. Data will be compiled and analyzed on an annual basis and documented in technical reports provided to CALFED, IEP, and other interested parties. All data collected will be made available for independent analysis.

h. Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives

The Foundation will actively solicit support from local participants primarily in the form of services in kind, and voluntary labor. Hanson Environmental, Inc. has also agreed to provide local support to the proposed project through fishery consultant services and assistance in developing monitoring and evaluation programs. The Chipps Island shallow-water habitat - wetland project is compatible with the stressors that have been identified and the development of significant habitat improvement projects within the Bay-Delta system. The evaluation program has also been developed to specifically determine whether the design of the shallow-water habitat - wetland, which includes invertebrate production areas, in combination with a water management strategy designed to provide benefits for both aquatic and wildlife resources is effective and can be applied, on a more generic basis, to the management of extensive habitat areas currently existing within Suisun Marsh and other areas of the Delta. The results of the evaluation will also provide input to CALFED and others for assessing potential biological benefits of habitat improvement projects, developing design criteria, and alternative operational strategies as part of the long-term CALFED Habitat Enhancement Program.

II. TITLE PAGE

- a. Title of Project: Chipps Island Shallow-Water Habitat - Wetland Enhancement Project
- b. Applicant: Fishery Foundation of California
P.O. Box 271114
Concord, CA 94527-1114
510/944-9115; fax 510/944-3514
- c. Type of Organization/Tax Status: California Corporation/Not For Profit
- d. Tax ID No: 94-2987019
- e. Technical Contact: Thomas Hampson
(same address and telephone numbers as above)
- Financial Contact: Pat Duran
(same address and telephone numbers as above)
- f. Participants/Collaborators: Fishery Foundation of California
In Implementation Hanson Environmental, Inc.
- g. RFP Project Group: Group 3: Other Services

III. PROJECT DESCRIPTION

a. Project Description and Approach

Suisun Bay provides important estuarine rearing habitat for a large variety of fish and invertebrate species. Ichthyoplankton (fish eggs and larvae), juvenile and adult lifestages rely on shallow-water habitat within the brackish region of the estuary for all or a part of their lifecycle. Relationships developed using fishery data collected by the California Department of Fish and Game have shown that indices of abundance are higher in those years when outflow and salinity promote the distribution of these species into Suisun Bay in the general vicinity of Chipps Island. Based upon these relationships, provisions were included within the 1994 Delta Accord, and as part of the Anadromous Fish Restoration Program, to improve habitat conditions through the seasonal occurrence of the 2 ppt salinity isohaline (X2) at or downstream of Chipps Island. To gain the maximum biological benefit from the Delta Accord, and actions being considered by CALFED, improvements in the quality and availability of fisheries habitat within Suisun Bay are needed.

The Fishery Foundation of California is requesting Category III funding to establish 400 acres of shallow-water brackish habitat and managed wetlands on Chipps Island. The project has been designed to provide habitat benefit to both aquatic resources (fish and invertebrate populations) and wildlife including seasonal waterfowl. The project will provide (1) 400 acres of fish and wildlife habitat, (2) information useful in evaluating the biological performance of the habitat, (3) an evaluation of a water management strategy that, if successful can be extended to improve habitat in managed wetlands throughout Suisun Marsh and the delta, (4) an evaluation of the effectiveness of shallow water invertebrate production areas, and (5) a basis for developing generic criteria for the design, operations, and water management of similar shallow water habitat and wetland projects developed as part of the long-term habitat improvements under CALFED.

Implementation and evaluation of the habitat enhancement project is planned to occur over a seven-year period (Phases II-IV). At completion of the first four phases of the project, and based upon results of the monitoring and evaluation program, CALFED will have the option of a long-term lease, purchase of the habitat project at fair market value. The Chipps Island property is currently owned and managed by the Fishery Foundation of California.

The Chipps Island shallow-water habitat - wetland project is compatible with the stressors identified by CALFED and the development of significant habitat improvement projects within the Bay-Delta system. The proposed project will not preclude any future CALFED habitat program, nor will it conflict with any of the water conveyance and management strategies currently being considered by CALFED. Being located downstream in Suisun Bay at Chipps Island, the proposed project offers the opportunity for substantial habitat benefits under all of the CALFED options currently being considered.

The proposed approach to the design and implementation of the habitat enhancement project would include:

- Completion of the preliminary engineering design of the distribution channels, habitat features, and water management and control structures;

- Review of the preliminary engineering design with hydrologists, water quality specialists, fishery and wildlife biologists to assess water circulation patterns, potential sediment deposition and erosion, habitat diversity, and operational control and management of the project;
- Revise the engineering design as necessary;
- Prepare environmental documentation and permitting;
- Provide the environmental monitoring and evaluation plan to the IEP Salmon Project work team, Native Delta Fish Project work team, Estuarine Project work team, and other scientists from State and Federal resource agencies, CALFED, and the private sector for peer review and comment;
- Finalize project design, monitoring and evaluation, and project operations plans;
- Construct distribution and drainage canals, shallow-water areas, and flashboard weirs used for water management and control. All construction will be performed under the supervision of Tom Hampson, Project Manager, for the Fishery Foundation;
- Initiate project operations, monitoring, and evaluation; and
- Prepare annual monitoring and evaluation reports documenting results of project operations, water quality and hydrology monitoring, and fishery and wildlife monitoring.

At completion of the first seven-year phases of the project the Fishery Foundation will present a synthesis and compilation of all results and monitoring data to CALFED for consideration of their option for continued involvement in further phases of the project, through a long-term lease purchase or purchase of the habitat project at fair market value.

The schedule of the project includes two years for completion of all project planning, permitting, design, and construction. Operation and management of the wetland, including biological monitoring and evaluation of performance, will be performed over a five-year period to determine the rate of colonization by various species, interannual variability in the abundance, species composition, habitat use by aquatic and wildlife species, and changes in habitat use and characteristics in response to seasonal variation in salinity and other environmental factors. In total, the first four phases of the project will be seven years in duration.

b. Location and/or Geographic Boundaries of Project

The project site is a 420 acre parcel located on Chipps Island, Solano County. Chipps Island is located within Suisun Bay two miles west of the confluence of the Sacramento and San Joaquin rivers, at the southwestern edge of Suisun Marsh.

c. Expected Benefits

Specific benefits of the project include:

- Creation of 400 acres of shallow-water brackish habitat and managed wetland on Chipps Island within Suisun Bay;
- Monitoring of colonization, habitat use, species composition, and assessment of fish and wildlife benefits;

- Evaluation of water management strategies designed to maximize both fishery and wildlife benefits;
- Technical input into the development of CALFED design criteria and operational management strategies applicable to other shallow-water wetland habitat projects; and
- Investigation of alternative management techniques designed to improve invertebrate production within managed shallow-water habitat.

d. Background and Biological/Technical Justification

Losses of shallow-water and wetland habitat have been identified by CALFED as primary environmental stressors affecting fish and wildlife populations within the Bay-Delta system. The proposed project will provide 400 acres of fish and wildlife habitat located within the critical habitat area of Suisun Bay at Chipps Island. In addition to meeting a primary objective of improving the quality and availability of shallow-water and wetland habitat, the project will also meet secondary CALFED goals of (1) evaluating biological performance of the habitat enhancement project, (2) evaluating alternative water management strategies which, if successful, could be applied to thousands of acres of managed wetlands of Suisun Marsh to substantially increase availability of shallow-water habitat for fisheries, while also maintaining high quality habitat for wildlife and seasonal waterfowl populations, (3) provide input to a CALFED effort to develop design and operational criteria for wetlands and shallow-water habitat for application to other projects within the Bay-Delta system, and (4) develop habitat enhancement projects which are compatible with and improve the overall benefits derived by other management actions such as provisions of X2 contained within the Delta Accord. In addition, the proposed project is consistent with the CALFED objective of increasing habitat diversity and providing environmental benefits to a variety of fish, invertebrate, and wildlife species.

e. Proposed Scope of Work

Phase I (completed)

- Preliminary investigation of project concept
- Research properties and acquire suitable parcel
- Develop initial proposal and biological monitoring plan

Phase II (one year)

- Complete preliminary engineering design of the distribution channels, habitat features, and water management and control structures
- Review preliminary design with consultants and agency representatives to assess plan
- Revise the plan as necessary
- Prepare environmental documentation and permitting
- Present environmental monitoring and evaluation plan to appropriate agencies for peer review and comment
- Finalize project design, monitoring and evaluation, and project operations plans

Phase III (one year)

- Undertake habitat restoration by implementing designs (construct distribution and drainage canals, shallow-water areas, and flashboard weirs)

- Initiate project operations, monitoring and evaluation
- Prepare annual monitoring and evaluation reports

Phase IV (five years)

- Ongoing monitoring, operations and maintenance
- Provide annual monitoring and evaluation reports
- At completion of the first four phases of the project the Fishery Foundation will present a synthesis and compilation of all results.

f. Monitoring and Data Evaluation

A detailed experimental and sampling design for both aquatic and wildlife resources will be implemented as part of the proposed project. The monitoring program and techniques used in evaluating success of the proposed project will be made available for technical peer review by project work teams within the Interagency Ecological Program (IEP) and by other scientists involved in the CALFED program, evaluations of similar shallow-water wetland projects, and other interested scientific investigators. As part of the project, opportunities will be identified for participation in the scientific investigations by academic investigators if additional funding is available. Monitoring and evaluation of the habitat performance would include, but not be limited to, the following:

- Periodic hydraulic monitoring of water velocities, flow, water depth, and surface area of various types of habitat;
- Water quality measurements including periodic measurement of electrical conductivity and dissolved oxygen concentrations, in addition to continuous water temperature monitoring at locations both within and immediately outside of the managed habitat area;
- Periodic fisheries sampling to determine the movement of fish into and out of the habitat, species composition and lifestages of fish inhabiting the area, length-frequency, and observations of fish condition and spawning activity;
- Data from fisheries monitoring will be used to characterize seasonal and interannual variability in habitat usage, diversity within the fish community, and use of the habitat area for spawning and/or juvenile rearing;
- Routine sampling of zooplankton and macroinvertebrate species composition and density to evaluate the effectiveness of areas designed and managed to promote aquatic invertebrate production within the shallow-water habitat;
- Colonization and growth of emergent and riparian vegetation to characterize species composition, diversity, and changes in areal extent; and
- Periodic surveys of the abundance, species composition, and interannual and seasonal variation in habitat use by wildlife and avian species.

Sampling frequency and intensity for aquatic and wildlife resources will be stratified seasonally to reflect changes in species use within the area. Biological monitoring will be performed at pre-established locations and transects, using quantifiable measures in assessing the biological response to habitat conditions. Results of biological and water quality monitoring within the shallow-water habitat - wetland after completion of the habitat modifications and implementation of the water management strategy will be compared with similar measurements made within the habitat under current (baseline) conditions.

In establishing the experimental and sampling design for the evaluation program, opportunities will also be identified for establishing reference sampling locations in similar habitats not affected by the proposed project actions. Reference stations may be identified in areas immediately adjacent to the proposed habitat project, or may be specifically included within the design of the shallow-water - wetland habitat area. Consideration will be given in the identification of reference locations for use as part of the evaluation of habitat performance through comparison with the biological response and water quality monitoring at reference locations characterized by existing water management practices for wetlands within the area, and free-flowing tidally inundated habitat areas.

Specific indicators of biological performance of the habitat will be identified *a priori* and included as part of the foundation for the monitoring and evaluation program. Consideration will be given in the monitoring and evaluation program for aquatic and wildlife resources to developing data consistent with more comprehensive monitoring programs currently being performed by the California Department of Fish and Game, the IEP, and other regional monitoring efforts.

Data collected as part of this project will follow standard procedures and protocols, and will be subject to periodic quality assessment checks. Data will be maintained and managed in electronic format for subsequent use in data analysis and evaluation. Sampling methods and the selection of measurement locations will be subject to review as part of the overall experimental design and sampling plan. Data will be compiled and analyzed on an annual basis and documented in technical reports provided to CALFED, IEP, and other interested parties. All data collected will be made available for independent analysis.

Monitoring and evaluation of the habitat includes consideration of both aquatic and wildlife resources, with anticipated biological benefits to both. Results of the biological monitoring and program of investigation included as part of this project will provide CALFED the necessary information for a decision to proceed or not to proceed with the project (long-term lease or purchase of the habitat project) based upon an understanding of the success of the project through Phase IV.

The evaluation program has also been developed to specifically determine whether the design of the shallow-water habitat - wetland, which includes invertebrate production areas, in combination with a water management strategy designed to provide benefits for both aquatic and wildlife resources is effective and can be applied, on a more generic basis, to the management of extensive habitat areas currently existing within Suisun Marsh and other areas of the Delta. The results of the evaluation will also provide input to CALFED and others for assessing potential biological benefits of habitat improvement projects, developing design criteria, and alternative operational strategies as part of the long-term CALFED Habitat Enhancement Program.

g. Implementability

A preliminary conceptual design for the proposed habitat enhancement project has been developed and provided to State and Federal resource agencies for informal review. Preliminary consultations have been held with regulatory agencies including the U.S. Fish and Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, National Marine Fisheries Service, California Department of Water Resources, Solano Resource Conservation District, and Solano County. Initial soil samples and water quality evaluations have been conducted. A preliminary design of the water

control structures has been developed and reviewed by Fritz Woo, Inc. of Concord, California. The Fishery Foundation has been advised that the proposed project will qualify under the Corps of Engineers permit, issued in 1996 to the Suisun Resource Conservation District, which addresses issues regarding project operations within Suisun Marsh for fish and wildlife management and related construction. Project construction will be performed by a qualified State of California licensed contractor, who will be selected by competitive bid.

The Fishery Foundation of California will be actively soliciting support for the proposed project from local participants including, but not limited to, Contra Costa County, United Anglers of California, California Striped Bass Association, Pacific Coast Federation of Fishermen's Association, Ducks Unlimited, California Waterfowl Association, and other local organizations. Support from these organizations is anticipated to primarily be in the form of services in kind, and voluntary labor. Hanson Environmental, Inc. has also agreed to provide local support, at no cost, to the proposed project through fishery consultant services and assistance in developing monitoring and evaluation programs.

As noted above, development of the proposed shallow-water habitat - wetland habitat project will be actively coordinated with monitoring programs and activities currently being performed by State and Federal resource agencies. Coordination with the IEP, the California Department of Fish and Game, CALFED, and local academic investigators will help insure that monitoring and evaluation procedures implemented as part of this project are consistent with basic sampling techniques used in other programs performed within the Bay-Delta system, both as part of CALFED efforts and as part of other regional monitoring programs.

Specific efforts will be made to coordinate the design of the shallow-water habitat - wetland and the accompanying monitoring and evaluation program with other investigators developing similar projects within the Bay-Delta. Coordination with other investigators on similar shallow-water habitat - wetland projects will help develop a more rigorous scientific framework for comparative evaluation of the performance of different projects and provide a more uniform database and foundation for evaluating alternative design and operational criteria for use in these and future CALFED projects. No significant impediments have been identified for implementation of the proposed project.

b. Schedule Milestones

Phase I (completed):

Preliminary investigation of project concept, research suitable properties, acquire property, develop initial proposal, develop initial biological monitoring plan, provide management and maintenance of property.

Phase II (from time of funding for 12 months)

- Complete preliminary engineering design of the distribution channels, habitat features, and water management and control structures
- Review preliminary design with consultants and agency representatives to assess plan
- Revise the plan as necessary
- Prepare environmental documentation and permitting
- Present environmental monitoring and evaluation plan to appropriate agencies for peer review and comment
- Finalize project design, monitoring and evaluation, and project operations plans

Phase III (from completion of Phase II for 12 months)

- Undertake habitat restoration by implementing designs (construct distribution and drainage canals, shallow-water areas, and flashboard weirs)
- Initiate project operations, monitoring and evaluation
- Prepare annual monitoring and evaluation reports

Phase IV (ongoing for five years after completion of Phase III)

- Ongoing monitoring, operations and maintenance
- Provide annual monitoring and evaluation reports
- At completion of the first four phases of the project the Fishery Foundation will present a synthesis and compilation of all results.

c. Third Party Impacts

The Fishery Foundation of California currently owns the Chipps Island habitat enhancement site. No third party impacts of the proposed project have been identified.

V. APPLICANT QUALIFICATIONS

a. Overview of Team

The project team will consist of the following individuals and organizations:

- Fishery Foundation of California will serve as the contracting agency for CALFED funding, will be responsible for the administration of all project funds, and will provide project management under the supervision of Mr. Tom Hampson;
- Dr. Charles H. Hanson, Hanson Environmental, Inc. will serve as the fishery consultant and scientific advisor to the project;
- Mr. Phil Williams, Phillip Williams and Associates, will provide input regarding project design and hydrology; and
- A California licensed contractor, selected under competitive bid, will perform construction of the water control structure, distribution and drainage channels, and shallow-water habitat.

b. Responsibilities of Personnel

- Ms. Pat Duran, Fishery Foundation, will serve as contract administrator and will oversee budgeting and accounting;
- Mr. Tom Hampson, Fishery Foundation, will serve as project manager and will be responsible for overseeing completion of the initial engineering design, preparation of environmental documentation and permit applications, on-site supervision of the construction contractor, operational management of the water control structures and habitat management, and supervision of water quality and biological monitoring. Mr. Hampson will be assisted by field technical support and scientific research aides;
- Mr. Robert Hayden, Fishery Foundation, will serve as advisor to the Project.
- Dr. Charles H. Hanson, Hanson Environmental, Inc., will help prepare the initial project plan, assist in the design of the shallow-water habitat - wetland, assist in the preparation of environmental documentation and permit applications, develop the water quality and biological monitoring and evaluation plan, provide training and quality control for field data collection associated with water quality and biological monitoring, assist with database management and analysis of monitoring results, and provide peer review of annual monitoring documentation reports; and
- Mr. Phil Williams, Phillip Williams and Associates, will provide technical review of the preliminary shallow-water habitat design and the anticipated water flow panels and hydrology associated with the water control structures and distribution channels within the shallow-water habitat - wetland.

c. Relevant Experience of Key Personnel

The Fishery Foundation of California was established in 1986 to develop and implement innovative fishery restoration programs. Since 1992, the Foundation has successfully completed ten contracts with state agencies including California Department of Fish and Game, Department of Water Resources, and the Wildlife Conservation Board. The Foundation is currently administering two mobile net pen projects in the Delta. The value of these twelve contracts is over \$1.9 million. The Foundation has completed fishery habitat restoration and enhancement projects in Baechtcl, Haehl,

and Willits creeks which are tributaries to the Eel River. The Foundation has also developed the use of mobile net holding pens as an integral part of CDF and G's Chinook salmon planting program. The holding pens have been used to acclimate over 20 million salmon yearlings prior to release into the Sacramento - San Joaquin Bay-Delta system thereby greatly enhancing their survival. The Foundation has also designed and implemented the striped bass mobile pen rearing project, now in its sixth year, in which over 680,000 striped bass salvaged from the State Water Project have been reared and/or released into the Bay-Delta system.

- Pat Duran, Executive Director of the Fishery Foundation, administers the Foundation's contracts. Ms. Duran has over 17 years of administrative and managerial experience.
- Tom Hampson will serve as Project Manager for the proposed Chipps Island Habitat Enhancement Project. Mr. Hampson has managed fishery restoration and enhancement projects for the Foundation since 1992. Mr. Hampson developed the initial design concept for the Chipps Island project. Mr. Hampson is a California State licensed building contractor, and a licensed aquaculturist.
- Robert Hayden, will serve as Advisor to the Project. Mr. Hayden is President of the Fishery Foundation and has successfully designed and implemented numerous habitat enhancement and restoration projects in the Eel River watershed. As a fishery biologist, Mr. Hayden has served as Habitat Restoration Project Manager on the Mendocino County Resource Conservation District, and has worked for the U.S. Fish and Wildlife Service and the California Department of Fish and Game.
- Dr. Charles Hanson, Hanson Environmental, Inc., will act as fisheries consultant and scientific advisor on the proposed habitat project. Dr. Hanson has been actively involved in the monitoring and evaluation of fisheries populations within the Bay-Delta system for over 20 years. Dr. Hanson has also participated in the development of fisheries management plans, the Native Delta Fish Recovery Plan, habitat conservation plans, and other management actions affecting aquatic and wildlife resources within the Bay-Delta system. Dr. Hanson has also been actively involved in the design, implementation, monitoring, and evaluation of brackish water wetland habitat for wildlife.

d. References

- Dr. Randall Brown, California Department of Water Resources, 916/227-7531
- Mr. Don Stevens, California Department of Fish and Game, 209/948-7800
- Mr. Robert Schulenburg, Wildlife Conservation Board, 916/653-6297

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME

FISHERY FOUNDATION OF CALIFORNIA

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

Patricia Duran

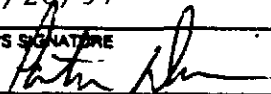
DATE EXECUTED

7/28/97

EXECUTED IN THE COUNTY OF

Contra Costa

PROSPECTIVE CONTRACTOR'S SIGNATURE



PROSPECTIVE CONTRACTOR'S TITLE

Executive Director

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Fishery Foundation of California